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CLAIMS

1. A magnet assembly having inner and outer yokes of magnetic flux conductive material which together define an annular air gap and a radially oriented magnet sandwiched between the inner and outer yokes such that a first face of a first magnetic polarity contacts the inner yoke and a second face of a second opposite magnetic polarity contacts the outer yoke, characterised by an axially oriented magnet forming part of the magnet assembly, and wherein the radially oriented magnet is annular and has opposed axial ends, and the inner and outer yokes are annular and together enclose one axial end of radially oriented magnet to define the air gap, and wherein the axially oriented magnet is disposed adjacent to the other axial end of the radially oriented magnet, whereby the inner and outer yokes and the axially oriented magnet together reduce flux leakage from the magnet assembly.
2. A magnet assembly according to claim 1, comprising a shield mounted to the axially oriented magnet and to at least one of the inner and outer yokes to provide a path for magnetic flux to flow from the axially oriented magnet to the at least one yoke.
3. A magnet assembly according to claim 2, wherein the axially oriented magnet contacts the inner yoke and wherein the shield contacts the outer yoke.

4. A magnet assembly according to claim 2 or claim 3, wherein the shield is cup shaped.

5. A magnet assembly according to any preceding claim, comprising a second axially oriented magnet mounted at the
5 opposed end of magnet assembly to the first axially oriented magnet.

6. A magnet assembly according to any preceding claim, wherein the inner yoke has a cross-section which tapers away from the air gap.

10 7. A magnet assembly according to any preceding claim, wherein the inner and outer yokes are provided with chamfers adjacent the air gap to focus the magnetic field developed within the gap.

8. A magnet assembly according to any preceding claim,
15 wherein the inner yoke and the outer yoke are arranged so that the volume of magnetic flux conductive material in both inner and outer yokes is approximately equal.

9. An actuator comprising a coil assembly, a magnet assembly having inner and outer yokes of magnetic flux conductive
20 material which together define an annular air gap in which the coil assembly is disposed, and a radially oriented magnet sandwiched between the inner and outer yokes such that a first face of a first magnetic polarity is adjacent the inner yoke and a second face of a second opposite magnetic polarity is

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adjacent the outer yoke, and a suspension connected between the coil assembly and the magnet assembly for supporting the coil assembly for axial movement within the air gap, characterised by an axially oriented magnet forming part of the magnet assembly, and wherein the radially oriented magnet is annular and has opposed axial ends, and the inner and outer yokes are annular and together enclose one axial end of radially oriented magnet to define the air gap, and wherein the axially oriented magnet is disposed adjacent to the other axial end of the radially oriented magnet, whereby the inner and outer yokes and the axially oriented magnet together reduce flux leakage from the magnet assembly.

10. A loudspeaker comprising an acoustic radiator and an actuator according to claim 9 which is mounted to the acoustic radiator to drive it to produce an acoustic output.